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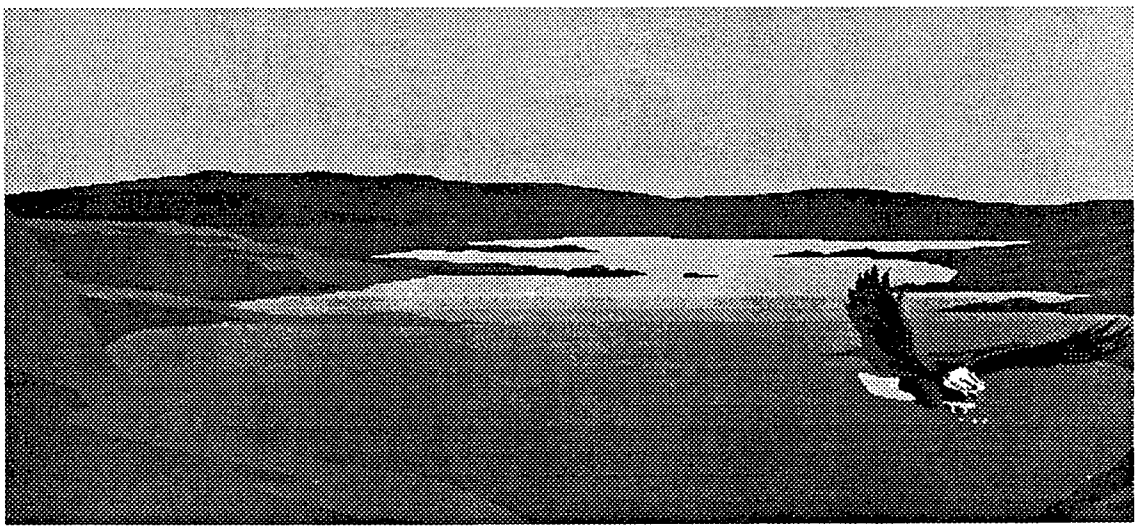
ENVIRONMENTAL RESTORATION PROGRAM

Monthly Report For
March, 1991



April 20, 1991

EG&G ROCKY FLATS

U.S. DEPARTMENT OF ENERGY
ROCKY FLATS PLANT

ENVIRONMENTAL RESTORATION PROGRAM

MONTHLY REPORT FOR

MARCH 1991

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1.0 INTRODUCTION

This Monthly Status Report presents the current status and technical achievements of the Rocky Flats Environmental Restoration Program for March 1991. This Program implements the Interagency Agreement between the U.S. Department of Energy, the U.S. Environmental Protection Agency, and the State of Colorado to investigate, assess, and remediate, where necessary, contaminated areas at or adjacent to DOE's Rocky Flats Plant in Golden, Colorado. This agreement was signed on January 22, 1991. The work is being performed for DOE by EG&G Rocky Flats, Inc.

Section 2.0 of this report, the Executive Summary, highlights significant achievements and summarizes the milestones completed during March. It also presents any major unresolved issues of the Program. Technical progress, schedule status, and milestone status for each Operable Unit as well as other Program activities are presented in Section 3.0. Operable Units in which no FY91 activity is planned are not included. Section 4.0 contains the schedules for routine environmental sampling as required by paragraph 210 of the Interagency Agreement.

2.0 EXECUTIVE SUMMARY

2.1 SIGNIFICANT ACTIVITIES AND ACHIEVEMENTS FOR THE REPORT MONTH

The Sitewide Quality Assurance Project Plan (QAPP) and the Sitewide Standard Operating Procedures (SOPs) were submitted to the Environmental Protection Agency (EPA)/Colorado Department of Health (CDH) on their Interagency Agreement (IAG) milestone date of March 1, 1991.

After receiving direction from the Department of Energy (DOE), CN Geotech, the DOE contractor for construction of the 881 Hillside treatment facility, began work on the temporary decontamination pad on March 11, 1991. Construction of the temporary decontamination pad is progressing rapidly. The RCRA liner was placed and inspected by the end of March. Forming is underway, and the first pour of concrete is scheduled for the first week in April.

Because of their overlapping locations, a single environmental evaluation (EE) encompassing Operable Units (OUs) 1, 2, and 5 will be implemented at Rocky Flats Plant (RFP). By combining the EEs, redundancy is eliminated, and significant cost savings are anticipated. A proposal for the EE fieldwork in response to RFP's request for proposal is expected soon. Implementation of the fieldwork for the EEs is scheduled to begin in April.

2.2 PROBLEMS AND PROGRAMMATIC ISSUES

The regulatory agencies have set an April 18, 1991, date for completion of the final Plan for the Prevention of Contaminant Dispersion (PPCD); however, discussions are taking place to extend the completion date to July 22, 1991. The proposed revised schedule was discussed in light of the proposed scope of work. CDH (the project lead) acknowledged that the proposed July schedule date was realistic; however, during the week of March 10, 1991, DOE received a request from CDH for additional information regarding the revised PPCD Scope of Work. The additional information is required by CDH to substantiate DOE's request for the IAG milestone date extension. A formal response letter to EPA/CDH was prepared and is in the review and approval process.

Many EG&G staff members have been reassigned to high-priority safeguards and security upgrade projects that must be completed before the May 1991 Security Inspection and Evaluation (I&E). The impact on ER Program work and progress towards completing IAG milestones is still being evaluated. In addition to ER Program staff being reassigned, support from other RFP organizations (Health and Safety, Facilities Engineering, Facilities Project Management, Security, etc.) for fieldwork and construction has been jeopardized.

The remediation and revegetation efforts required by the OU 3 - Offsite Lands Settlement Agreement may be in conflict with CERCLA. DOE and the regulatory agencies will meet to discuss this concern.

2.3 NEAR-TERM IAG MILESTONES

OU#	Milestone Description	Scheduled Completion	Actual Completion
SW	Submit Final Quality Assurance Project Plan	01 Mar 91	01 Mar 91
SW	Submit Final Standard Operating Procedures	01 Mar 91	01 Mar 91
01	Begin Phase II-A IM/IRA Construction	01 Apr 91	
03	Submit Final Past Remedy Report	02 Apr 92	
05	Submit Draft Phase I RFI/RI Work Plan	05 Apr 91	
SW	Submit Draft Plan for Discharge Limits for Radionuclides	05 Apr 91	
02	Field Treatability Test System Installation Complete	12 Apr 91	(1)
02	Begin Field Treatability Testing	15 Apr 91	(1)
03	Submit Final Historical Information/Preliminary Health Risk Assessment Report	16 Apr 91	
SW	Submit Final Plan for Prevention of Contaminant Dispersion	18 Apr 91	(2)
06	Submit Draft Phase I RFI/RI Work Plan	19 Apr 91	

(1) EG&G has requested May 10, 1991, and May 13, 1991, completion dates.
(2) Interim PPCD submitted February 21, 1991. Request to extend completion date to July 22, 1991, submitted to EPA/CDH.

3.0 PROJECT STATUS

3.1 OU 1 - 881 HILLSIDE AREA

DESCRIPTION:

The soil and groundwater at the 881 Hillside Area, located north of Woman Creek in the southeast section of RFP, were potentially contaminated in the 1960s and 1970s with solvents and radionuclides. The various waste management sites that make up OU 1 are being investigated and treated as high-priority sites because of elevated concentrations of organic compounds in the groundwater and the proximity of the contamination to a drainage system leading to an offsite drinking water supply. The selected Interim Remedial Action (IRA) at OU 1 involves construction of an underground drainage system (French drain) that will intercept and contain contaminated groundwater flowing from the OU 1 area. The contaminated water will be treated and released back into the interceptor ditch alongside Woman Creek.

3.1.1 OU 1 ASSESSMENT

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase III RFI/RI Work Plan	06 Feb 90
Submit Final Phase III RFI/RI Work Plan	31 Oct 90

MARCH WORK ACTIVITY STATUS:

Mobilization activities for the Phase III RI fieldwork began March 22, 1991. As part of this activity, an OU-specific Health and Safety Plan (HSP) was completed and is being reviewed.

Because of their overlapping locations, a single EE encompassing OUs 1, 2, and 5 will be implemented at RFP. By combining the EEs, redundancy is eliminated, and significant cost savings are anticipated. A proposal for the EE fieldwork in response to RFP's request for proposal is expected soon. Implementation of the fieldwork for the EEs is scheduled to begin in April.

PLANNED WORK FOR APRIL:

The final revised Phase III RFI/RI Work Plan will be completed and submitted to EPA/CDH for approval.

Mobilization activities and training for the Phase III RI fieldwork will continue through April 1991, ending in time for the May 1, 1991, start of Phase III RI fieldwork.

PROBLEMS: None

OPEN ITEMS: None

3.1.2 OU 1 REMEDIATION

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Proposed IM/IRA Decision Document	18 Sep 89
Submit Proposed IM/IRA Decision Document	06 Oct 89
Submit Final IM/IRA Decision Document	05 Jan 90
Begin Phase I-A IM/IRA Construction	15 Jan 90
Restart Phase I-A IM/IRA Construction (after shutdown)	20 Jun 90
Begin Phase I-B IM/IRA Construction (ahead of schedule)	28 Sep 90
Submit IM/IRA Implementation Document	22 Feb 91

MARCH WORK ACTIVITY STATUS:

Due to favorable weather and a new four-day, ten hours per day work schedule, construction of the 891 Treatment Building structure progressed rapidly and was 95 percent complete at the end of March. The UV peroxide treatment system is being delivered to the 891 Treatment Building. The containment basin for the influent tanks is 65 percent complete.

After receiving direction from DOE, CN Geotech, the DOE contractor for construction of the 881 Hillside treatment facility, began work on the temporary decontamination pad on March 11, 1991. Construction of the temporary decontamination pad is progressing rapidly. The RCRA liner was placed and inspected by the end of March. Forming is underway, and the first pour of concrete is scheduled for the first week in April.

PLANNED WORK FOR APRIL:

Phase II-A construction at 881 Hillside (installation of the process treatment system and effluent tanks) will begin on April 1, 1991, the milestone date for this work.

The decontamination pad will be operational by May 1, when the OU 1 and OU 2 RFI/RI fieldwork is now scheduled to start.

Electricians and the mechanical contractor will be completing the interior work of the 891 Treatment Building in the next couple of weeks, and gas service to the building should be complete by April 5, 1991. Both the temporary decontamination pad and the 891 Treatment Building, except electrical work, are scheduled to be complete the week of April 19. The one MW main building transformer will be delivered mid-August 1991.

The final installation of power wiring will be completed at that time.

PROBLEMS: None

OPEN ITEMS: None

3.2 OU 2 - 903 PAD, MOUND, AND EAST TRENCHES

DESCRIPTION:

The contamination at the 903 Pad and Mound areas is largely attributed to the storage in the 1950s and 1960s of waste drums that corroded over time, allowing hazardous and radioactive material to leak into the surrounding soil. Additional contamination may have resulted from wind dispersion during removal and soil movement activities. The East Trenches Area was used for disposal of plutonium- and uranium-contaminated waste and sanitary sewage sludge from 1954 to 1968. Two areas adjacent to the trenches were used for spray irrigation of sewage treatment plant effluent, some of which may have contaminants that were not removed by the treatment system.

The IM/IRA Plan provides for surface water in source areas of contamination to be treated and discharged to the surface water system. Start-up of a field scale treatability unit is scheduled for the Walnut Creek drainage in 1991. The effectiveness of the treatment process will be evaluated at three locations: the entrance to the treatment facility, several points within the facility, and the discharge point. After completion of the field scale treatability tests, the unit is anticipated to remain in service until the final remedial action is operational. Bench scale testing of surface water in the Woman Creek drainage is planned for the spring of 1991, after which an Interim Remedial Action Plan for this drainage will be developed.

3.2.1 OU 2 ASSESSMENT

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase II RFI/RI Work Plan (Alluvial)	21 Dec 89
Submit Final Phase II RFI/RI Work Plan (Alluvial)	12 Apr 90
Submit Draft Phase II RFI/RI Work Plan (Bedrock)	05 Feb 91

MARCH WORK ACTIVITY STATUS:

The Phase II RFI/RI Work Plan (Alluvial) which had been approved by EPA/CDH, was revised to incorporate additional DOE and HAZWRAP comments and for compliance with the recently completed SOPs. The revised Work Plan will be submitted to EPA/CDH in early April.

Mobilization activities for the Phase II RFI/RI Alluvial fieldwork began on March 25, 1991. Actual fieldwork activities are scheduled to begin on May 1, 1991. The drilling start date is contingent on the availability of the temporary decontamination pad discussed in OU 1.

Because of their overlapping locations, a single EE encompassing OUs 1, 2, and 5 will be implemented at RFP. By combining the EEs, redundancy is eliminated, and significant cost savings are anticipated. A proposal for the EE fieldwork in response to RFP's request for proposal is expected soon. Implementation of the fieldwork for the EEs is scheduled to begin in April.

PLANNED WORK FOR APRIL:

Mobilization activities for the Phase II RFI/RI Alluvial fieldwork will continue through April 1991, on target for the May 1, 1991, milestone date to begin Phase II RI fieldwork.

PROBLEMS: None

OPEN ITEMS:

EPA/CDH review of the draft Phase II RI Plan (Bedrock) is scheduled to be completed May 3, 1991.

3.2.2 OU 2 REMEDIATION

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

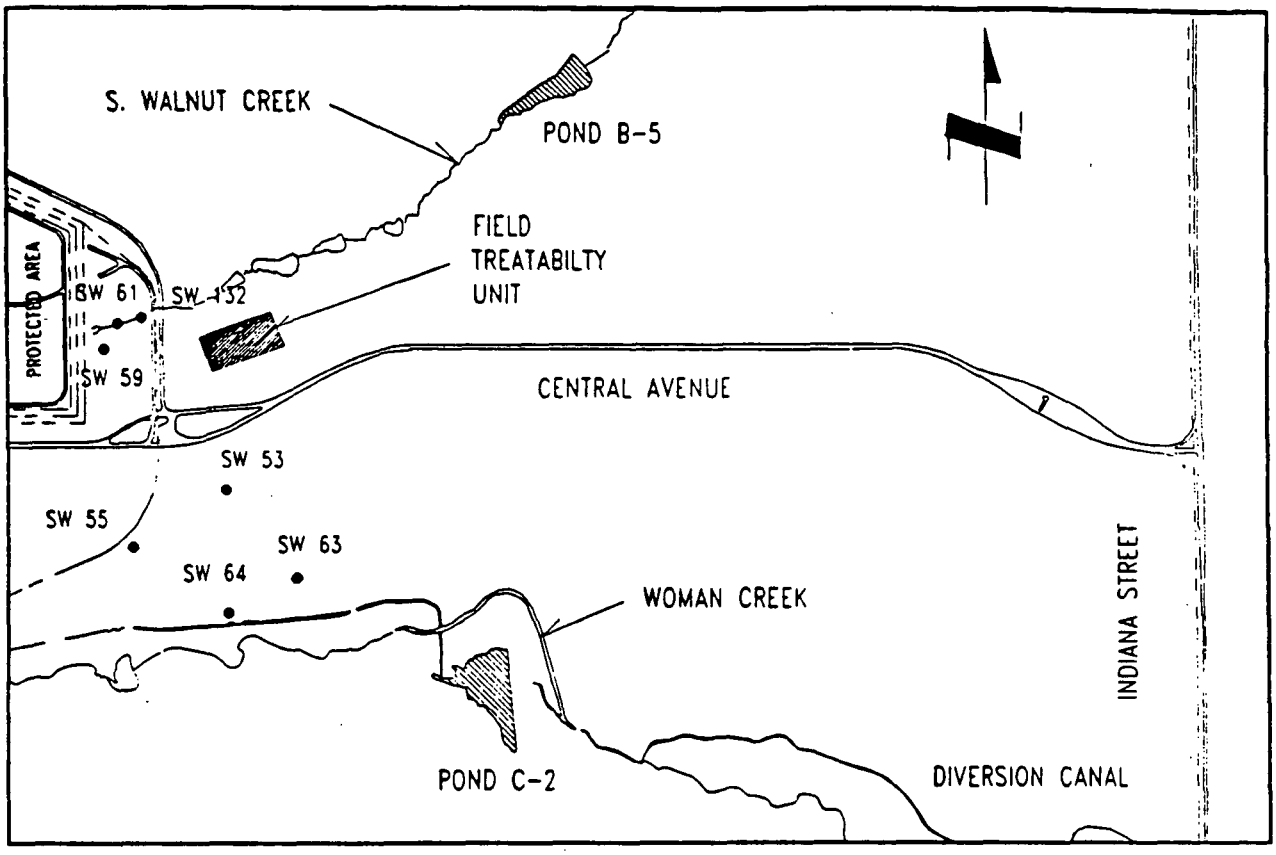
Submit Draft Proposed IM/IRA Decision Document	19 Jun 90
Submit Proposed Plan IM/IRA Decision Document	18 Sep 90
Submit Draft Responsiveness Summary	13 Dec 90
Submit Draft Responsiveness Summary and Final IM/IRA Decision Document	11 Jan 91

MARCH WORK ACTIVITY STATUS:

Contractor negotiations for the Granular Activated Carbon (GAC) Field Treatability Unit (FTU) equipment, installation, and operation were held on March 11, 1991. As a result of the negotiations, the contractor's proposed cost was reduced by 25 percent. EG&G Facilities Engineering approved the contractor's preliminary design submittals and a kickoff meeting with the contractor for the GAC FTU procurement, installation, and operation for the South Walnut Creek phase of OU 2 was held March 28, 1991. Pending final approval of the site-specific HSP and the final designs, pipeline construction and surface water collection equipment installation will begin.

After partial approval of the GAC Construction and Operations Plans and Procedures design submittals on March 21, 1991, the GAC contractor reserved a treatment system trailer. Final designs of the trailer and storage tank pads are being resolved in order to avoid excavation during construction. The relative location of the South Walnut Creek FTU on the east end of the Protected Area at RFP is shown on page 8. This FTU will treat water collected from Surface Water Monitoring Stations SW-59, -61, and -132.

The activities associated with the OU 2 Woman Creek Surface Water IRA will begin with bench scale testing in the spring of 1991. Once the bench scale tests have been evaluated, a draft Interim Remedial Action Plan (IRAP) document will be prepared. This IRA will treat water collected from SW-53, -55, -63, and -64.



Relative Locations of Field Treatability Unit and Surface Water Collection Points for OU 2.

PLANNED WORK FOR APRIL:

Upon approval of the final designs, GAC process equipment and the trailer to house the GAC system will be procured by the contractor. Modifications to the trailer for installation of the GAC system will begin at the contractor's offsite facility. Installation of the trailer/GAC system is scheduled for the first week in May 1991.

Assembly of the transport pipelines and installation of collection weirs for SW-59 and SW-61 are scheduled to begin during the week of April 15, 1991, pending final approval of the site-specific HSP. Heat tracing and insulation of the pipelines and weirs will follow the installation activities. Construction of the tank and trailer pads is scheduled to be completed by the end of April 1991.

PROBLEMS:

Delays to the GAC construction project have been introduced through reduced engineering support for design review and approval. These delays were caused by recent I&E projects that have been given a high priority by DOE.

OPEN ITEMS: None

3.3 OU 3 - OFFSITE AREAS

DESCRIPTION:

OU 3 can be divided into two categories based on the two drivers of the activities. The IAG directs activities according to CERCLA ~~and NEPA~~. This involves assessment of contamination in offsite areas also referred to as Individual Hazardous Substance Sites (IHSSs): Contamination of the Land Surface (IHSS 199), Great Western Reservoir (IHSS 200), Standley Lake (IHSS 201), and Mower Reservoir (IHSS 202). The second category responds to a 1985 out-of-court lawsuit settlement, McKay v. U.S., which directed that the surface soil contamination be remediated. Remedial activities began in 1985. The disturbance resulting from remediation is being revegetated as directed by the Settlement Agreement. The overall schedule for this activity is determined by the year-to-year success of the revegetation effort and requirements of the land owners.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Past Remedy Report	26 Oct 90
Submit Draft Historical Information/ Preliminary Health Risk Assessment Report	09 Nov 90

MARCH WORK ACTIVITY STATUS:

DOE, EPA, and EG&G held a meeting regarding the Cities Project. The Cities Project is the diversion ditch around Standley Lake which will be constructed by the local municipalities with DOE funding. EPA outlined their concerns and expectations of DOE and how CERCLA requirements will impact the Cities Project schedule. The roles of the various parties involved in this project are being clarified.

The final Past Remedy Report has been finalized and is in final review prior to delivery to EPA/CDH on April 2, 1991. The Past Remedy Report details the history of the remedy ordered by the U. S. District Court pursuant to the land owner's suit settled in 1985, the implementation of the remedy, and the effectiveness of the remedy. The report includes a health assessment identifying the public health risk associated with potential exposure to the public prior to the start of site remediation, during remediation, and after completion of the Settlement Agreement-imposed remedy.

Preparation of the preliminary draft Phase I RI Plan began March 25, 1991.

PLANNED WORK FOR APRIL:

The final Past Remedy Report will be submitted to EPA/CDH on the April 2, 1991, IAG milestone date. The subsequent review will end May 1, 1991.

The final Historical Information/Preliminary Health Risk Assessment Report will be finalized on time for the

April 16, 1991, IAG milestone submittal date. This report provides known data describing contamination within three offsite reservoirs: Great Western Reservoir, Standley Lake Reservoir, and Mower Reservoir. The report also includes a health risk assessment identifying the public health risk associated with potential exposure to the public for a no action alternative for remediation of the contamination.

Preparation of the draft Phase I RI Work Plan will continue through April.

PROBLEMS: None

OPEN ITEMS: None

3.4 OU 4 - SOLAR PONDS

DESCRIPTION:

Five evaporation ponds were used for storage of low-level radioactive process waste, sanitary treatment plant effluent, and contaminated groundwater collected downgradient of the ponds. The ponds are RCRA interim status regulated units that are currently under closure. Leakage from the ponds has contaminated soils and groundwater with various contaminants, including heavy metals and uranium.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan	08 Jun 90

MARCH WORK ACTIVITY STATUS:

The draft Phase I RFI/RI Work Plan was submitted to EPA/CDH in June 1990. The agencies will begin review of the plan in July 1991, and will finish in September 1991.

PLANNED WORK FOR APRIL:

No activities are scheduled until July 1991.

PROBLEMS: None

OPEN ITEMS: None

3.5 OU 5 - WOMAN CREEK

DESCRIPTION:

This activity encompasses assessment and remediation at the Woman Creek drainage, to include: Original Landfill; Ash Pits 1-4, Incinerator, and Concrete Wash Pad; Retention Ponds C-1 and C-2; and the surface disturbance southeast of Building 881.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

The first IAG milestone for this OU is scheduled for April 1991.

MARCH WORK ACTIVITY STATUS:

The draft RFI/RI Work Plan (including the EE Work Plan) and the Quality Assurance Addendum (QAA) for Woman Creek has been finalized and is in final review prior to submittal to EPA/CDH on April 5, 1991. The RFI/RI will investigate and define the site physical characteristics, define the sources of contamination and describe the nature and extent of contamination.

Because of their overlapping locations, a single EE encompassing OUs 1, 2, and 5 will be implemented at RFP. By combining the EEs, redundancy is eliminated, and significant cost savings are anticipated. A proposal for the EE fieldwork in response to RFP's request for proposal is expected soon. Implementation of the fieldwork for the EEs is scheduled to begin in April.

PLANNED WORK FOR APRIL:

The draft Phase I RFI/RI Work Plan and QAA will be finalized and submitted to EPA/CDH for review on the IAG milestone date of April 5, 1991. The subsequent agency review will continue into July 1991.

PROBLEMS: None

OPEN ITEMS: None

3.6 OU 6 - WALNUT CREEK

DESCRIPTION:

This activity encompasses assessment and remediation at the Walnut Creek Drainage, to include: Sludge Dispersal; Retention Ponds A-1, A-2, A-3, A-4, A-5, B-1, B-2, B-3, B-4, and B-5; Old Outfall; Triangle Area; Trenches A, B, and C; and North, East, South, and Pond Spray Field Areas.

SCOPE OF WORK CHANGES:

During development of the RFI/RI work plan, five monitoring wells, three high volume air monitoring stations, and one IHSS (IHSS 156.2 which was formerly in OU 14 - Radioactive Sites) were added to the scope of work.

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

The first IAG milestone for this OU is scheduled for April 1991.

MARCH WORK ACTIVITY STATUS:

The draft RFI/RI Work Plan (including the EE Work Plan) and the QAA for Walnut Creek is in the finalization process prior to submittal to EPA/CDH on April 19, 1991. The RFI/RI will investigate and define the site physical characteristics, define the sources of contamination, and describe the nature and extent of contamination.

PLANNED WORK FOR APRIL:

The draft Phase I RFI/RI Work Plan and QAA will be finalized and submitted to EPA/CDH for review on the IAG milestone date of April 19, 1991. The subsequent agency review will continue into July 1991.

PROBLEMS: None

OPEN ITEMS: None

3.7 OU 7 - PRESENT LANDFILL

DESCRIPTION:

The Present Landfill began operation in 1968. The landfill provided a means of disposing nonradioactive and nonhazardous solid waste. Some of the solid wastes from the plant, which were disposed in the landfill, contained hazardous waste and/or hazardous constituents. Although currently operating as a nonhazardous sanitary landfill, the facility is considered an inactive hazardous waste disposal unit undergoing RCRA closure.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan	08 Jun 90

MARCH WORK ACTIVITY STATUS:

No activities are scheduled until July 1991.

PLANNED WORK FOR APRIL:

No activities are scheduled until July 1991.

PROBLEMS: None

OPEN ITEMS: None

3.8 OU 8 - 700 AREA

DESCRIPTION:

This activity involves assessment of the 700 Area, which includes several IHSSs. These units include multiple solvent spills, a valve vault west of Building 707, several liquid waste storage tanks, several cooling tower blowdown facilities, and numerous potential chemical and/or process waste leaks.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

The first IAG milestone for this OU is scheduled for May 1992.

MARCH WORK ACTIVITY STATUS:

No activities are scheduled until October 1991.

PLANNED WORK FOR APRIL:

No activities are scheduled until October 1991.

PROBLEMS: None

OPEN ITEMS: None

3.9 OU 9 - ORIGINAL PROCESS WASTE LINES

DESCRIPTION:

This activity involved characterizing a series of tanks and associated process waste lines. The system was constructed to transport and temporarily store aqueous process wastes. Soil characterization studies will determine the need for soil removal and/or treatment.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan	08 Jun 90

MARCH WORK ACTIVITY STATUS:

No activities are scheduled until July 1991.

PLANNED WORK FOR APRIL:

No activities are scheduled until July 1991.

PROBLEMS: None

OPEN ITEMS: None

3.10 OU 10 - OTHER OUTSIDE CLOSURES

DESCRIPTION:

An RFI/RI Work Plan is currently in preparation. OU 10 is made up of 13 IHSSs consisting of various hazardous waste units. The primary components of the RFI/RI Work Plan for OU 10 will be a Field Sampling Plan (FSP), Baseline Risk Assessment Plan (BRAP), and an EE Work Plan.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

The first IAG milestone for this OU is scheduled for November 1991.

MARCH WORK ACTIVITY STATUS:

EG&G will issue the Draft RFI/RI Work Plan for internal review in October 1991.

PLANNED WORK FOR APRIL:

The EE Work Plan for OU 10, which will be incorporated into the RFI/RI Work Plan, is expected to be initiated in April 1991.

PROBLEMS: None

OPEN ITEMS: None

3.11 OU 11 - WEST SPRAY FIELD

DESCRIPTION:

The West Spray Field is located within Rocky Flats property boundary immediately west of the plant security area. The West Spray Field was in operation from April 1982 to October 1985. During operation, excess liquids form the solar evaporation ponds 207-B North and Center (contaminated groundwater in the vicinity of the ponds and treated sanitary sewage effluent) were pumped periodically to the West Spray Field for spray application. The spray field boundary covers an area of approximately 105.1 acres, 38.3 of which received direct application of hazardous waste. The RFI/RI process will entail field studies to determine the presence and levels of hazardous constituents in soil and groundwater.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan	08 Jun 90

MARCH WORK ACTIVITY STATUS:

No activities are scheduled until July 1991.

PLANNED WORK FOR APRIL:

No activities are scheduled until July 1991.

PROBLEMS: None

OPEN ITEMS: None

3.12 SITEWIDE ACTIVITIES

DESCRIPTION:

The Sitewide programs assessment includes several tasks that encompass a wide variety of plans, procedures, reports, studies, and other activities required by the IAG and that apply to RFP in general.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

MILESTONE ACCOMPLISHMENTS:

Submit Draft Background Study Report (Water)	15 Dec 89
Submit Draft Background Study Report (Soils)	15 Dec 89
Submit Draft Community Survey Plan	23 Jan 90
Submit Final Community Survey Plan	22 Mar 90
Submit Draft Health and Safety Plan	15 Aug 90
Submit Draft Quality Assurance Project Plan	29 Aug 90
Submit Draft Standard Operating Procedures	29 Aug 90
Submit Draft Plan for Prevention of Contaminant Dispersion	19 Sep 90
Submit Draft Treatability Study Plan	21 Sep 90
Submit Draft Community Relations Plan	01 Nov 90
Submit Final Health and Safety Plan	12 Nov 90
Submit Revised Background Study Report	21 Dec 90
Submit Final Community Relations Plan	22 Jan 91
Submit Final Quality Assurance Project Plan	01 Mar 91
Submit Final Standard Operating Procedures	01 Mar 91

MARCH WORK ACTIVITY STATUS:

A meeting to take oral public comment on the ER Program Community Relations Plan (CRP) was held at the Westminster Park Recreation Center on March 13, 1991. The CRP was developed as a requirement of the recently signed IAG between DOE, EPA, and CDH. Only three people offered oral comments. In general, they disputed statements made regarding the plant's history, particularly on the radiological impacts of the 1957 and 1969 fires. They also called for the formation of a citizens' dispute resolution committee and stated that the plant should publish editorials from interest groups in the bimonthly ER Update. Approximately 15 members of the public attended the first public meeting on the plan held on February 21, 1991, at which few comments on the plan were offered. Written comments on the plan were accepted through March 30, 1991.

A second progress meeting was held with parties involved in preparing the Historical Release Report (HRR). The HRR will document all spills of hazardous substances at RFP from its inception in 1951 to date. The HRR will be a living document as it will be updated in the future to keep it a complete history of all spills at the RFP. A draft of the document will be delivered as a milestone to the regulatory agencies in January 1992. Current tasks include locating files to review, preparing procedures to assist in obtaining appropriate information from those files, requesting access to pertinent files and contacting persons deemed to be of

importance to try and locate additional sources of information.

On March 7, 1991, a PPCD Working Group meeting, consisting of representatives from DOE, EPA, CDH, and EG&G, was held to discuss issues and concerns on the project. Issues discussed included: comments on the Interim PPCD, the revised technical approach, the scope of work and schedule for the Final PPCD. Overall, EPA and CDH expressed satisfaction with the Interim PPCD. CDH has several minor comments that will be submitted for DOE's consideration. Both regulatory agencies concurred with the revised technical approach and scope which were presented and discussed at length.

The Draft Radionuclides Discharge Limits Plan (RDLP) was finalized and is in final review prior to delivery to EPA/CDH on its milestone date, April 5, 1991. The primary focus of this work plan is the monitoring and control of radionuclide concentrations in discharge water. The RDLP describes analytical protocols and methods for the determination of radionuclide levels, presents statistical assessments of accumulated analytical results, and recommends additional radionuclide studies to better characterize the water quality of RFP discharges. The RDLP also describes current procedures for planning, approving, and conducting offsite discharges of water from the RFP terminal ponds A-5, B-5, and C-2. Procedures for implementing the discharge plan are reviewed, and methods for streamlining operations are proposed. Current treatment approaches and limitations are reviewed, and plans for future treatability studies are addressed.

The Sitewide QAPP and SOPs were submitted to EPA/CDH on their IAG milestone date of March 1, 1991. The QAPP describes the sitewide quality assurance (QA) requirements which will be implemented by DOE, EG&G Rocky Flats, Inc., and all subcontractors conducting IAG activities at RFP. The SOPs detail the field techniques to be utilized during the investigation of the site, and provide guidance for the performance of all fieldwork to ensure that work required by the IAG is performed in accordance with EPA-approved methods. Pending EPA/CDH approval of the QAPP and SOPs, a readiness review will be conducted prior to the start of any field activities to verify that all elements are in place.

PLANNED WORK FOR APRIL:

Compilation of the CRP Responsiveness Summary will begin April 1, 1991, on schedule for its IAG milestone submittal date of June 21, 1991.

The draft RDLP will be delivered to EPA/CDH on its milestone date, April 5, 1991. The agencies review of the RDLP will continue into July 1991.

Resolution of issues on the Treatability Study Plan will continue through April, on schedule for its IAG milestone submittal date of June 3, 1991.

PROBLEMS:

The regulatory agencies have set an April 18, 1991, date of completion for the final PPCD; however, discussions are taking place to extend the completion date to July 22, 1991. The proposed revised schedule was discussed in light of the proposed scope of work. CDH (the project lead) acknowledged that the proposed July schedule date was realistic; however, during the week of March 10, 1991, DOE received a request from CDH for additional information regarding the revised PPCD Scope of Work. The additional information is required by CDH to substantiate DOE's request for the IAG milestone date extension. A formal response letter to EPA/CDH was prepared and is in the review and approval process.

OPEN ITEMS: None

4.0 ROUTINE ENVIRONMENTAL MONITORING

The following generalized sampling schedule for Routine Environmental Monitoring is provided as requested in Section 210 of the IAG. EPA and the State may contact EG&G to arrange for an EPA- or State-authorized representative to observe fieldwork and to obtain split or duplicate samples. Field teams are continually taking these samples, and a further breakdown of the sample schedule would therefore not be feasible.

SURFACE WATER AND SEDIMENTS:

Each of the Surface Water Stations (approximately 120 stations) are sampled monthly.

Each of the Sediment Stations (approximately 40 stations) are sampled quarterly.

Each surface water and sediment sample is analyzed for the following parameters:

- CLP TCL VOAs
- CLP TAL Metals
- plus Cesium
  - Lithium
  - Molybdenum
  - Strontium
  - Tin
- Major Anions
- Radionuclides
- Indicator Parameters
- Field Parameters
  - pH
  - Temperature
  - Specific Conductivity
  - Dissolved Oxygen (DO)

SOILS:

Each of the Soil Stations (located at 1- and 2-mile radii from the plant center) are sampled annually.

Each soil sample is analyzed for plutonium and americium.

GROUNDWATER:

Each of the Groundwater Stations (approximately 346) are sampled quarterly; this includes 187 alluvial wells, 103 bedrock wells, and 56 pre-1986 wells. Approximately 116 of the wells are monitored monthly for water levels.

Each groundwater sample is analyzed for the following parameters:

- Radiochemical Parameters
  - Gross Alpha
  - Gross Beta
  - Tritium
  - Uranium
  - Plutonium
  - Americium
  - Strontium
  - Cesium
- CLP TCL VOAs
- CLP TAL Metals
- Inorganic Parameters
  - Nitrate/Nitrite
  - Total Phosphorous
  - Ortho-Phosphate
  - Ammonia